

Keywords: antibody, hybridoma, stroke, t-PA

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The effects of body acupuncture on body composition in Iranian obese and overweight subjects

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Body acupuncture has been reported to reduce body weight, BMI, body and trunk fat mass in subjects in clinical practice. In the present study, we have evaluated the effects of body acupuncture on body composition including body weight, BMI, body and trunk fat mass in subjects of both genders divided into 2 groups as follows; Case Group: (n=90, female=67, male=23) subjects with low-calorie diet and body acupuncture. Subjects were recruited from Nutrition Clinic, Ghaem hospital, Mashhad, Iran. The acupoints on their bodies included: Tianshu(St25), Zusanli(St36), Fenglong(St40), Naiguan(P6), Sanyinjiao(SP6). Control group: (n=92, female=68, male=24) subjects with low-calorie diet and unreal body acupuncture. The acupoints on their bodies were not real and the needles were just reaching the surface of their skins. Each patient received three treatment sessions per week each 20-30 minutes for 6 weeks. Both groups were investigated for 6 weeks. Body weight, BMI, body fat mass, trunk fat mass, percent of body and trunk fat were measured before and after treatment in all subjects. Significant reduction was observed in body weight (p<0.05), BMI (p<0.05), body fat mass (p<0.05), trunk fat mass (p<0.05), body and trunk fat percentage (p<0.05) in both the case and control groups. It appears that needling not body acupuncture has beneficial effects on body composition in obese and overweight subjects.

Keywords: body acupuncture, body weight, BMI, body fat mass, trunk fat mass, percent of body fat, percent of trunk fat

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Purification of streptokinase by chemical modification and separation of the contaminating proteins

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Streptokinase is used clinically as an intravenous thrombolytic agent for the treatment of acute myocardial infarction and is commonly prepared from cultures of *S. equisimilis* strain H46A. Streptokinase, unlike the contaminating proteins which make up the impurities, does not contain the amino acids cysteine or cystine. This structural difference may be employed to provide a more effective method for the purification of streptokinase from the fermentation broth. The H46A strain of group C streptococcus was grown in Brain Heart Infusion (BHI) in a BioFlo 110 fermentor. The pH was maintained between 6.9 and 7.1 by neutralization with NaOH and temperature was adjusted to 37° C for 5 hr, the fermentation was stopped by rapid

cooling to 4° C and by the addition of hexyl resorcinol. After centrifugation and sterilizing filtration of the supernatant, the filtrate was concentrated by ultrafiltration. The pH of the concentrate was adjusted, cooled, and the fraction precipitating by cold methanol was harvested. This was dissolved in water at neutrality. Protein solution was reduced with dithiothreitol (DTT) and incubated at 30° C. Aldrithiol-2 was then added and the solution incubated with agitation. The solution was then cooled and centrifuged. The supernatant was then decanted from the precipitate. The purity of streptokinase was confirmed by SDS-PAGE and its biological activity determined in a specific streptokinase assay. Numerous methods of purifying streptokinase have been described often result in unacceptable losses of streptokinase or inadequate removal of impurities and employ expensive harsh or flammable reagents, but the mentioned method can give high yield of streptokinase and is easy to perform.

Keywords: streptokinase, thrombolytic, purification, chemical modification

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Characterization of *S. aureus* enterotoxin in an allergic patient with osteomyelitis

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A 42 Years-old atopic woman with allergic rhinitis and osteomyelitis received flucloxacillin sodium (FS) 1 gram qds for 2 weeks, for the treatment of a flucloxacillin – resistant *s. aureus* (FRSA) osteomyelitis. *S. aureus* enterotoxin was isolated by biologic methods. Resistant *s. aureus* (FRSA) was recovered from fistula swab. Sodium fucidate (SF) 500 mg qds was introduced in the 14 Day. The patient became afebrile and the culture became sterile after 12 day with FS and SF treatment. The isolates were tested by agar dilution, and agar screening for enterotoxin. An isolate representative of the hospital epidemic FRSA clone which was isolated before, were subcultured several times in the presence of FS Quality control with *s. aureus* ATCC 25923 and purity control was performed with each test. Culture showed 3 strain of coagulase negative *s.aureus*. Several FRSA isolates collected from patient grew in the FC of 0.6-8 mcg/ml before induction with FC. After 5 subcultures with FS, FRSA isolates showed a FS, MIC of 3.2mcg/ml and had a correlation with enterotoxin. We studied a case of Allergic patient with osteomyelitis due to a *s. aureus* strain successfully controlled with oral SF plus, SF, the fact they resistance could be induced in hospital epidemic FRSA strain.

Keywords: enterotoxin, *S. aureus*, flucloxacillin, allergic patients

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Fatty acid distribution in low density lipoprotein in diabetes in Sari, North of Iran

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Atherosclerosis is commonly found in diabetes. There is an association between low density lipoprotein (LDL) phenotype, which is more